

LESSON 6 ANSWERS

1. $x = 8$ or $x = -8$

3. $b = 1$ or $x = -1$

5. $5 + 8a = 53$ or $5 + 8a = -53$

$8a = 48$ or $8a = -58$

$a = 6$ or $a = -\frac{29}{4}$

7. $3k + 8 = 2$ or $3k + 8 = -2$

$3k = -6$ or $3k = -10$

$k = -2$ or $k = -\frac{10}{3}$

9. $9 + 7x = 30$ or $9 + 7x = -30$

$7x = 21$ or $7x = -39$

$x = 3$ or $x = -\frac{39}{7}$

11. $8 + 6m = 50$ or $8 + 6m = -50$

$6m = 42$ or $6m = -58$

$m = 7$ or $m = -\frac{29}{3}$

13. $6 - 2x = 24$ or $6 - 2x = -24$

$-2x = 18$ or $-2x = -30$

$x = -9$ or $x = 15$

15. Divide both sides by -7.

$|-3 - 3r| = 3$

$-3 - 3r = 3$ or $-3 - 3r = -3$

$-3r = 6$ or $-3r = 0$

$r = -2$ or $r = 0$

17. Divide both sides by 7.

$|-7x - 3| = 3$

$-7x - 3 = 3$ or $-7x - 3 = -3$

$-7x = 6$ or $-7x = 0$

$x = -\frac{6}{7}$ or $x = 0$

19. Multiply both sides by 8.

$|-4b - 10| = 24$

$-4b - 10 = 24$ or $-4b - 10 = -24$

$-4b = 34$ or $-4b = -14$

$b = -\frac{17}{2}$ or $b = \frac{7}{2}$

21. Add 3 to both sides, then divide both sides by 8.

$8|x + 7| = 8$

$|x + 7| = 1$

$x + 7 = 1$ or $x + 7 = -1$

$x = -6$ or $x = -8$

23. Subtract 1 from both sides, then divide both sides by 5.

$5|3 + 7m| = 50$

$|3 + 7m| = 10$

$3 + 7m = 10$ or $3 + 7m = -10$

$7m = 7$ or $7m = -13$

$m = 1$ or $m = -\frac{13}{7}$

25. Subtract 3 from both sides, then divide both sides by 5.

$5|8 - 2x| = 60$

$|8 - 2x| = 12$

$8 - 2x = 12$ or $8 - 2x = -12$

$-2x = 4$ or $-2x = -20$

$x = -2$ or $x = 10$

27. Subtract 10 from both sides.

$|6b - 2| = 34$

$6b - 2 = 34$ or $6b - 2 = -34$

$6b = 36$ or $6b = -32$

$b = 6$ or $b = -\frac{16}{3}$